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UTAH DEPARTMENT OF NATURAL RESOURCES
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Plate 1
Utah Geological and Mineral Survey Map 85
Geologic Map of the Beryl Junction Quadrangle

Base from U.S. Geological Survey Beryl Junction Quadrangle, 1972

Field mapping by author in 1984
J. Parker, Cartographer

SCALE 1:24 000

CONTOUR INTERVAL 10 FEET
DOTTED LINES REPRESENT 5-FOOT CONTOURS
NATIONAL GEODETIC VERTICAL DATUM OF 1929

UTM GRID AND 1972 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

UTAH
QUADRANGLE LOCATION

GEOLOGIC MAP OF THE BERYL JUNCTION QUADRANGLE, IRON COUNTY, UTAH

by
Mary A. Siders
Utah Geological and Mineral Survey

1985

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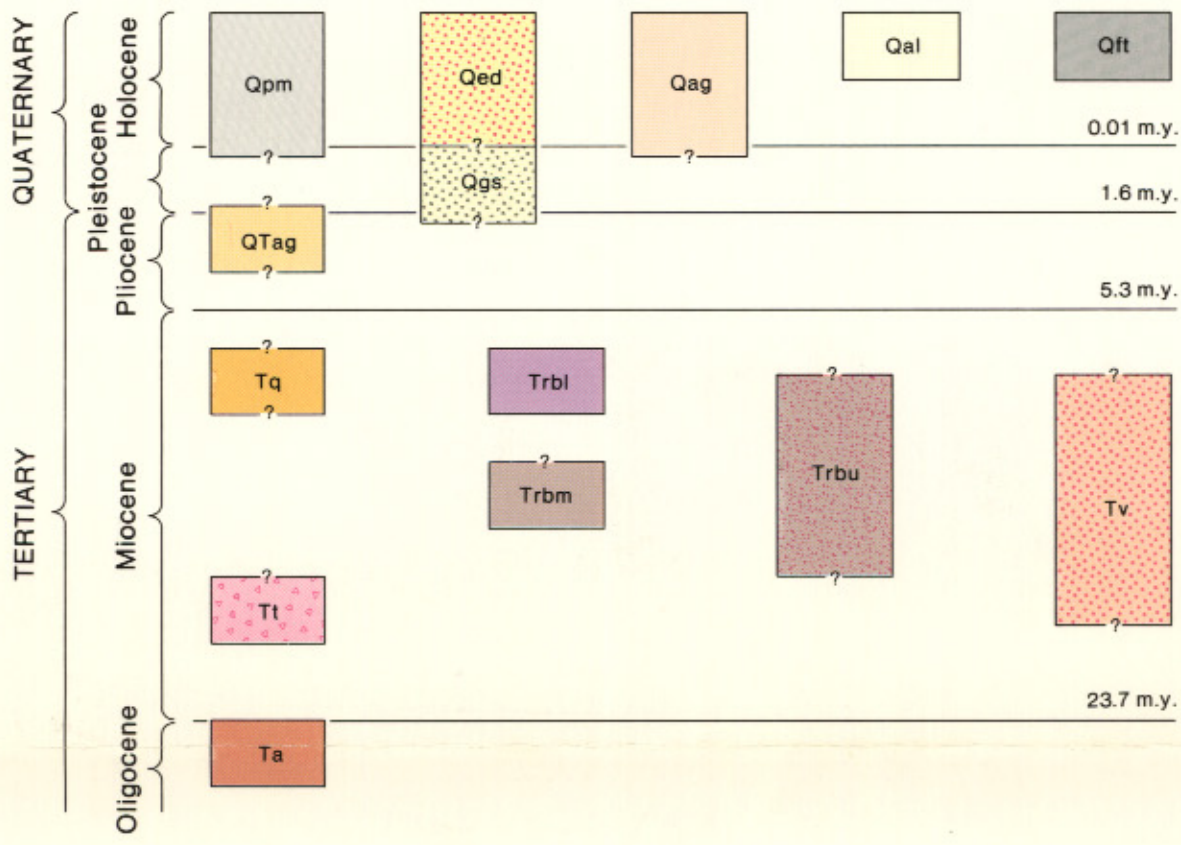
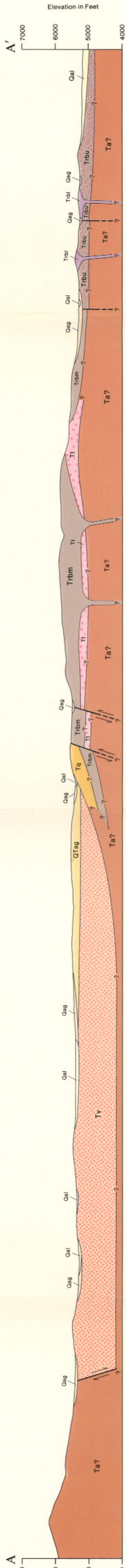
Plate 2
Utah Geological and Mineral Survey Map 85
Geologic Map of the Beryl Junction Quadrangle

CORRELATION OF MAP UNITS





DESCRIPTION OF MAP UNITS

Qft — Tailings pond (Recent) — *Tailings pond containing waste water from the Escalante Silver Mine mill.*

Qal — Alluvium (Holocene) — *Unconsolidated sand and silt in ephemeral stream channels.*

Qag — Alluvium (Holocene and Pleistocene?) — *Unconsolidated sand and gravel covering slopes and plains. Also includes sand, gravel and boulder deposits with fan morphology.*

Qed — Dune sand (Holocene and Pleistocene?) — *Calcium carbonate, quartz and clay grains deposited in a playa lake environment and transported by eolian processes.*

Qpm — Playa lake basin (Holocene and Pleistocene?) — *Flat pans that contain shallow ephemeral lakes.*

Qgs — Sands and gravels of ancestral Shoal Creek (Holocene and Pleistocene?) — *Cross-bedded sands and gravels as well as soil horizons, now well exposed in gravel pits.*

QTag — Older dissected alluvium (Holocene, Pleistocene and Pliocene?) — *Older slope and plain alluvium presently being eroded. These deposits are found mainly within the graben basin in the west-central portion of the quadrangle.*

Tv — "Mine Series" volcaniclastic rocks (Miocene) — *0-1200 ft. Crudely bedded volcanic breccias and conglomerates, volcaniclastic sandstones and tuffaceous sediments. The exposed thickness ranges from 100 to 150 feet, although 1,200+ feet have been drilled in the vicinity of the Escalante Silver Mine. A mineralized sample from this unit has a K-Ar age on adularia of 11.6 ± 0.5 m.y. (Siders, this report), although deposition of the entire "Mine Series" sequence probably spans a range ± several million years from this date.*

Tq — Limestone of Quartz Hill (Miocene) — *0-200 ft. Limestone beds that have been replaced by chalcedonic quartz. Beds contain locally abundant plant fossils.*

Rhyolite of Beryl Junction (Miocene)

Trbl — Later rhyolite flow member — *0-100 ft. Gray, flow-layered rhyolites that occur in only minor amounts as small plugs or flows.*

Trbu — Volcaniclastic facies member — *0-200 ft. Includes matrix-supported volcaniclastic rocks that contain chiefly rhyolitic lithic fragments, and silicified and/or iron-stained and otherwise hydrothermally altered rhyolitic lavas and vitrophyres. This undivided collection of fragmental lavas and volcaniclastic rocks probably spans the entire time of deposition of Trbe to Trbl.*

Trbm — Rhyolitic flow member — *0-400 ft. Includes both dense, reddish-purple lavas with sparse anorthoclase-sanidine feldspar phenocrysts and irregular gray flow streaks, and rhyolites of generally gray- and red-streaked or mottled appearance that contain sanidine. The former contains an average of 6.5% anorthoclase-sanidine, 2.5% Fe-Ti oxides, and 0.2% clinopyroxene. Anhedral interlocking quartz grains, which occur as "stringers," comprise 1.9%. The latter rhyolite contains similar mineral abundances except that the potassium feldspar is sanidine rather than anorthoclase-sanidine. A K-Ar age on feldspar from these lavas is 10.8 ± 0.6 m.y. (Siders, this report).*

Tt — Tuffs, undivided (Miocene) — *0-150 ft. Poorly welded vitric-lithic-crystal tuffs of white, yellow to pale pink color that contain yellowish pumice and gray to reddish-purple lithic fragments as well as crystals of sanidine, quartz, Fe-Ti oxides, plagioclase, sphene and zircon. These tuffs may be related to the 12.8 m.y.-old rhyolites of Piñon Point (Trp, Tcp), which occur in the adjacent Piñon Point quadrangle.*

Ta — Andesite of Enterprise (Latest Oligocene/Miocene) — *0-800 ft. Porphyritic to nearly aphyric hornblende andesite and two-pyroxene andesite lavas containing 22.0-37.3% plagioclase, 0-6.4% hornblende, 2.0-6.4% clinopyroxene, 2.0-5.4% orthopyroxene, 2.3-4.0% Fe-Ti oxides and trace amounts of biotite, olivine and xenolithic fragments. A K-Ar age on hornblende from these andesites in the adjacent Piñon Point quadrangle is 24.2 ± 1.2 m.y. (Siders, 1985).*

SYMBOLS

CONTACT
Dashed where location inferred

NORMAL FAULT
Bar and ball on downthrown side;
dashed where location inferred;
dotted where covered;
dip indicated

STRIKE-SLIP FAULT
Arrows show relative movement;
dashed where location inferred;
dotted where covered

STRIKE AND DIP OF BEDDING
23
Inclined — Vertical

STRIKE AND DIP OF IGNEOUS FOLIATION
45
Inclined — Vertical

LOCATION OF ROCK SAMPLE
× Geochemical — ○ K-Ar
★ Thin section only
(ts) = thin section

OTHER SYMBOLS
Vein
× Prospect — Shaft — Adit